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EXAMINER

GOFF II, JOHN L

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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Continuation of 11. does NOT place the application in condition for allowance because:

Applicants argue, “The Applicants maintain that simply because one or more of an acrylic, epoxy, and silicon elastomer may be equivalents with respect to the fact that they may all be removed from the surface of a substrate when contacted with hydrofluoric acid, as disclosed in Mandell, this in turn does not mean that a silicone elastomer is the functional equivalent of an acrylic or epoxy resin as those resins are employed in Kurdi. Specifically, upon reading Mandell, one of skill in the art would not be led to expect that acrylic, epoxy, and silicon elastomers would function equally well as encapsulants, nor would one expect that they could be removed as easily without employing hydrofluoric acid to effectuate such removal.”.

Kurdi requires “Exemplary fluids are those which can be drawn into the recesses between rows to planarize the rows, cured, and then later removed. Exemplary fluids generally include a resin component and a curing agent. Resin components include those comprising monomers containing epoxy, thio, olefin, and acrylic functionality as well as mixtures thereof.”. Kurdi simply requires a resin with low viscosity that can be removed, and Kurdi suggests as exemplary epoxies, acrylics, etc. Mandell demonstrates a number of resins including those useful as encapsulating resins that are removable including epoxies, acrylics, silicon elastomers, etc. As the primary function of the resin in Kurdi is one that is removable Mandell clearly demonstrates that epoxies, acrylics, and silicon elastomers are functionally equivalent for the same. Further, Homan, Lee, and Wong demonstrate silicon elastomer encapsulants having low viscosity to flow easily into small places. Again, one of the functions of the resin in Kurdi is that the resin can be drawn into the recesses whereby Homan, Lee, and Wong demonstrate that silicon elastomers possess the same. In view of the above there is at least a reasonable expectation of success that silicone elastomers are an equivalent alternative to epoxy and acrylic resins for use in Kurdi. As to applicants argument that “nor would one expect that they could be removed as easily without employing hydrofluoric acid to effectuate such removal”, there is no teaching away from using

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hydrofluoric acid in Kurdi to remove the resin as Kurdi does not require any particular removal material/technique.

Applicants further argue, “Applicants first submit that Mandell fails to teach or suggest the use of such a resin remover in the electrical arts, let alone that any part of its disclosure may be applicable to methods of manufacturing air-bearing sliders in magnetic recording discs.”.

Mandell teaches “It will be understood that the method of the present invention is capable of removing from surfaces, adherent resins of a wide variety of chemical compositions, including the great majority of commercially available coating materials, foams, encapsulating compounds, and glues. Because of their wide commercial use, and the ability of the compositions of the present invention to readily remove them, resins of the following compositions are especially susceptible to removal by practice of the present invention: epoxies, urethanes, phenolics, polycarbonates, polyesters, acrylics, neoprenes, silicon elastomers, nylons, polyvinyl chlorides, polyvinyl alcohols, and copolymers of the above.”. The teachings of Mandell are applicable to the great majority of commercially available resins including encapsulating compounds.

Applicants further argue, “In addition, Mandell provides a detailed description of exemplary methods for removing the resins at col. 5, line 60 to col. 6, line 5. Such methods are described as “dipping the resin-covered substrate into the compositions” or “by spraying or flowing the compositions over the resin coating.” Applicants contend that the skilled artisan would fully realize that such descriptions can hardly be equated to methods of removing resins during the manufacture of a slider assembly as in the present invention.”.

These methods are only exemplary. Kurdi does not teach away from any particular method. Applicants specification describes using solvent to wash away the resin, heat, or mechanical action such as brushing to remove the resin. It is unclear then how spraying or flowing the compositions over the resin coating is not equated to methods of removing resins during the manufacture of a slider assembly as in the present invention.

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Applicants further argue, “Applicants maintain, as presented in the previous response, that cured epoxy materials, e.g., pure thermosetting epoxy resins, such as those disclosed in Kurdi, can be removed from sliders only with great difficulty and often with leaving significant material residue on the slider surfaces. See the Applicants’ specification at paragraph 7.”.

Applicants have not shown any results to demonstrate organosilicon material is superior to epoxy as an encapsulating material in slider assembly. The portion referred to in the specification does not present any quantitative showing.

Applicants further argue, “Homan discloses an encapsulant that is designed to impregnate an electrical coil and thereby act as an insulator therefore. See column 6, lines 23-25. Lee discloses an encapsulant that is designed to protect electronic devices from the environment. See column 1, lines 19-22. Wong discloses an encapsulant designed for protecting electronic devices. See column 1, lines 6-9. Accordingly, each of the cited references is directed to a permanent, “non-debondable” encapsulant.”.

None of Homan, Lee, or Wong describes the silicon elastomers as non-debondable. Mandell expressly demonstrates that such materials are debondable.

/John L. Goff/  
Primary Examiner, Art Unit 1791